

ESTABLISHED IN 1861

THE AMERICAN BEE JOURNAL

OLDEST BEE-PAPER IN AMERICA

GEORGE W. YORK,
Editor.

DEVOTED EXCLUSIVELY
TO BEE-CULTURE.

Weekly, \$1.00 a Year.
Sample Free.

VOL. XXXII. CHICAGO, ILL., JULY 13, 1893.

NO. 2.



The Old Friends, the old friends,
We loved when we were young,
With sunshine on their faces,
And music on their tongue!
The bees are in the almond flower,
The birds renew their strain;
But the old friends, once lost to us,
Can never come again.

The old friends, the old friends!
Their brow is lined with care;
They've furrows in the faded cheek,
And silver in the hair;
But to me they are the old friends still,
In youth and bloom the same,
As when we drove the flying ball,
Or shouted in the game.

—London Spectator.

Never Laugh at anything funny you say yourself. In the first place, it spoils the joke, and in the next place it is very likely no joke, any way.

The Japanese Honey Industry is also represented at the World's Fair by specimens of bees, honey, beeswax, and hives. The Japanese Agricultural Bureau has published a little pamphlet explaining the way of using the hive, the method of collecting honey, and giving the names of the plants from which the bees get honey. It is there stated that honey sells for 9 sen (cents) a kin (1.325 pounds), and beeswax at 30 sen a kin.

Birds of Michigan, by Prof. A. J. Cook, is the title of a beautiful pamphlet just issued by the Michigan Agricultural College. It is Bulletin No. 94, contains about 150 pages, and is elegantly illustrated. It must have taken a wondrous amount of work to prepare, and that may account for Prof. Cook's seeming to take so little interest in bee-keeping of late. The Professor is a hard worker, and the "Birds of Michigan" is only one of the results of his tireless efforts.

Illinois Bee-Keeping was not aided very much at the late meeting of the State Legislature, outside of the appropriation for making the apiarian exhibit at the World's Fair. Mr. Jas. A. Stone, Secretary of the Illinois State Bee-Keepers' Association, wrote us as follows on June 23rd:

BRADFORDTON, ILLS.

Our Legislature has adjourned without doing anything for us, or for the people of the State, in the way of helping along the bee-keeping industry, and thereby cheapening honey to the consumer. We had some good friends there among the members of both houses, and we desire they shall always be remembered, and we shall do it in every way we can.

Our Bill asking an appropriation of \$500 to publish our Report, passed the House of Representatives, and when on the second reading in the Senate, the enacting clause was stricken out.

The Bill to prevent the adulteration of honey passed the Senate, and went to the second reading in the House. Their plea, when approached regarding it, was—"Hain't got time." The Legislative committee of the State Bee-Keepers' Association did all in their power to do, but to no avail. Sometimes we had hopes, but they soon withered away.

I wish to say, however, that our coming report (for 1893) has been delayed until we should know whether or not the appropria-

tion for its publication was to be continued, and as the question is now settled, we desire to say that the said Report will probably not come out until about the end of 1893, or the beginning of next year.

We wish also to say that copies of the Report will be bound in cloth in sufficient number to supply the members of the Illinois State Bee-Keepers' Association, and as many as the fund will allow beyond that, in paper covers. JAS. A. STONE, Sec.

Prevention of Swarming.—Miss Amanda Atchley, in *Uncle Sam's Live Stock Journal* for June, wrote as follows about the cause and prevention of the swarming of bees:

Some one asks: "What causes bees to swarm?" Well, it is an abundance of sealed brood that causes them to swarm, as I never knew a natural swarm to issue without an abundance of sealed brood, both drones and workers. But sometimes they may swarm without drone-brood at all. Still they are likely to have sealed drone-brood at the time the swarm issues. Whoever knew a natural swarm to issue without plenty of sealed brood? Even if they have a full hive of unsealed brood they show no swarming sign. When our bees are on a swarming rampage, I always find the hive solid full of sealed brood. In short, bees nearly always have sealed brood, sealed drones, and sealed queen-cells. Then look out.

If you wish to keep your bees from swarming, keep their sealed brood taken away until they become so weakened that they are willing to give it up, and I will bet you a nickel you can control swarming. Use the brood in strengthening weak colonies, or build up good, strong colonies with the sealed brood, and give them a case of sections and a queen-cell, or a young laying queen that is not bent on swarming, and you have got 'em. I should like to strike that apiary with a swarming-fever that I could not control. Try my plan, and see.

The Proper Care of Honey.—During the past few years of failure of the honey crop directions as to how to keep honey were quite unnecessary, as there was practically no honey to require any care; but this year, as we hope it will be different, we give below some suggestions that may be of service to those who secure honey, and desire to know how to take the best care of it.

After the honey is taken from the hive, says the *Kansas Farmer*, a great many people permit it to spoil because they do not know how to care for it. Many think it should be kept cool, and so put it in the cellar. This is the worst thing that could be done with it. If there is any dampness around, honey is sure to absorb it. "But

our cellar is very dry, and it is the only place we have to keep it," has been the remark of more than one to the writer when he has told them not to put honey in the cellar. It may be well to say, once for all, that there is not a cellar in the United States dry enough to keep honey in. Put your honey in the driest and warmest room you have about the house. If there is a fire in it, all the better, as honey should not be left where it will freeze in winter.

Dry and warm is the rule for honey, if you want it to retain its flavor and richness. Honey properly kept will improve with age, and the older it is the better it will be. But if kept in a damp place, it will absorb moisture, become thin and watery, and soon lose its rich flavor. As soon as it is exposed to cold, when in this condition, it will granulate in the cells, and then it is almost worthless except to melt up and feed to the bees in the spring.

The above instructions are for comb honey. Extracted honey should also be kept in a dry, warm place. To keep the moth-worm out of comb honey, it is well to fumigate it occasionally by burning sulphur in the room where it is stored.

The Baby Carriage advertisement in our columns seems to have worried Mr. Sage, the editor of the *Bee-Keepers' Enterprise*. He says this in his June 15th number:

I see friend York is advertising Baby Carriages. Is that a cash adv., Bro. York, or have you taken one in trade?

As we have not had any use for a baby carriage for over 30 years, or since we were small enough to ride in one, it is quite unlikely that we are trading for one now. Perhaps Mr. Sage was thinking that he needed a carriage for his two months' "baby bee-paper," the *Enterprise*. If so, he may be able to borrow one from Bro. Hutchinson, or as soon as his little "Fern" gets through with hers. Of course it would be a second-hand one, but some things are the better for having the "newness" worn off a little. We may be a little previous in suggesting that a baby carriage could perhaps be borrowed from our Bro. Hutchinson, in view of the fact that for the past decade or more he has kept one in almost constant use. But if Mr. Sage really needs a baby carriage now, or thinks one would come in handy later on, we would commend him to the firm advertising in our columns, who warrant their carriages "for three years."

Have You Read that wonderful book Premium offer on page 35?

THE STINGER.

"Flavored" with Formic Acid.

The following is not culled from Dr. Miller's "Stray Straws," but was taken from one of the daily papers:

"Our Crazy Contributor is dying to know if that singular-looking specimen of vegetation, known as the monkey-plant, is of the same variety as the chim-pansy; and if so, would not the proper place for cultivating it be an ape-lary?"

We do not propose to solve the conundrum, but would suggest, however, that the "Crazy Contributor" do not monkey about the "ape-lary" else he may find things worse than if a bull had gotten into a crockery shop.

It is admitted that one swallow does not make a summer, yet we think one bee comes nearer making summer than any other single thing we know of, for does not a bee make things awfully warm, sometimes?

Little drops of honey,
Little grains of gold,
Make the bee-men happy
When their sweets are sold.

A bird in the hand is worth two in the bush; but as much cannot be said of a bee in the hand. Too often one in the hand is too heavy to hold.

Wasn't it that delightfully pleasing and dyspeptic old poet, Alexander Pope, that said something about children being "tickled with a straw and pleased with a rattle?" Perhaps Dr. Miller can inform us, for he seems to have gotten the "straw" tickling business down to a fine point.

BY ONE STUNG.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—ED.

Will Shade Prevent Swarming?

I am a beginner in bee-keeping, having 10 colonies, mostly blacks, all in movable-frame hives, and all good, strong colonies. I wish them to in-

crease. This is June 12th, and they have not swarmed yet. Everybody's bees around me are swarming; some swarmed on May 15th, and my bees do not act as if they cared to swarm. Is too much shade the cause? I have them under low apple trees, the hives all being well shaded.

CHAS. C. CHAMBERLIN.

Romeo, Mich.

ANSWER.—Shade cannot be relied on to prevent swarming, but it has a tendency in that direction, a colony in the open sun being more likely to swarm than one in a dense shade, and swarming sooner in the warm location. If you continue bee-keeping long enough, you may be very anxious for a shade deep enough to prevent all swarming.

Why Does a Swarm Return?

Why do bees swarm and settle, and while you are hiving them they will return to the hive from where they came?

C. W. ROBERTS.

Brownville, Nebr.

ANSWER.—If the wings of a queen are clipped, or if for any reason she cannot accompany the swarm, the bees will return to the hive, sometimes immediately and sometimes after settling for half an hour. Sometimes when a queen goes on her wedding trip, the colony issues like a swarm and then returns to the hive. Sometimes a swarm will issue, and then return, and no one under the sun can tell why.

What Ails the Bees?

1. What ails my bees? The strongest colony I had has been carrying out dead brood for 4 weeks. I looked at them this morning (June 11), and found only drone-brood, and that was all sizes from fresh eggs up to full size.

2. My 16 colonies I put into the cellar on Nov. 1st; they came out all right except one that was queenless, but they robbed one colony since. I never have lost one in the cellar, but am losing from 2 to 3 every year from getting queenless. I leave the tight covers on. My cellar ranges from 42° to 45°.

3. Why are the Italians so many different colors? I sent to Texas and got an untested queen for my queenless colony this spring, and got one as yellow as gold—the first Italian I ever saw—and her bees are all the way from almost black to yellow, with a black tip.

Is that a general thing with mixed bees? They are considerably smaller than my black bees.

S. M. ROBERTSON.

Grey Eagle, Minn.

ANSWERS.—1. If the brood in the hive is all drone-brood, there is either a drone-laying queen present, or laying workers. In either case the colony is utterly worthless if left to itself, and the workers present are probably so old and so few that it may be best to break up the colony. If, however, you think there are enough bees to be worth saving, put in a frame containing young brood, and after they have started queen-cells you can give them a queen-cell ready to hatch. Possibly they might respect the queen-cell if given to them at once. It might be a good plan to try dropping in a young queen less than a day old, as some have reported success in this way.

It is not so easy to say why the bees have been carrying out the young brood. Possibly because worms at work in the combs have injured the brood.

2. The queenlessness probably does not result from anything in the wintering. Very likely the bees were queenless in the fall.

3. Your queen being untested, she probably met a black drone, and such first cross is likely to produce bees some of which look like pure blacks and some like pure Italians.

Bees Swarming Out—Young Drones.

1. Do queens ever dislike a location? I hived a swarm and the bees and queen went in all right, but the queen came out and took wing. I caught her and put her back, and the operation was repeated several times, and the same day the queen and all left, the bees had begun to draw out the foundation. Were they led off by the queen?

2. What makes bees destroy the young drones that are not hatched out? I had one colony to do this daily. It was not because there was a dearth of pasturage, for bees are swarming and they are lying out at the same time.

Bankston, Ala. M. W. GARDNER.

ANSWERS.—1. It isn't easy to say positively as to the likes and dislikes of a queen. More likely it is the workers whose tastes are to be consulted. At any rate it is no unusual thing for bees to swarm out after being hived, if the place is too hot, or objectionable in any other way, sometimes making quite a start at housekeeping before leaving.

Sometimes they seem to swarm out again out of pure mischief.

2. If honey was coming in plentifully, and bees were destroying drone-brood, it might be because they had a young queen just commencing to lay, and so had no more need of drones.

The Most Desirable Hive-Cover.

Which is the most desirable cover for this climate, the gable, slanting or flat, and why?

What are the objections to the gable? Tacoma, Wash. G. D. LITTOOR.

ANSWER.—"You pays your money, you takes your choice." Some like one, some like the other. A gable cover, as usually made, costs more than a plain flat one, and the flat cover is quite popular because it can fit right down on the hive with no quilt or sheet under it, having only a bee-space (scant $\frac{1}{4}$ inch,) between the cover and the top-bars. On the other hand, it is difficult to have a flat cover that will not warp. A gable cover will not admit of piling up as will a flat one. A good cover is made that is a sort of compromise, fitting flat on the hive but made slanting by making the sides of the cover thinner than the middle. Straight cleats make piling up possible in spite of the slanting cover.

A Case of "Nameless Bee-Disease."

I have a colony of bees that puzzles me. They crawl out in front and up on the side of the hive. They shake as if they had a chill. Their abdomens are greatly distended. A good many of them are glossy black, and look like skeletons. I never saw anything like it. I have examined them several times, but can see nothing the matter with them; and for all that so many of them die every day, they are tolerably strong.

R. R. STOKESBERRY.

Clinton, Ind.

ANSWER.—You have on hand a case of what has generally been called the "nameless disease." It is also called "bee-paralysis," the scientific name being *Bacillus depilis*. In some cases little harm seems to come from it, while a few cases have been reported as terribly destructive. Changing the queen has been recommended as a cure, also feeding salt water, while some who have had much experience with the disease in its milder form say that it soon disappears if let entirely alone.

**J. S. HARBISON.**

Mr. W. A. Pryal, of North, Temescal, Calif., has kindly furnished the following interesting biographical sketch of one of the most noted bee-keepers the world ever knew :

J. S. Harbison! What a name was this in California a quarter of a century

**J. S. HARBISON.**

and less ago. And the golden boundaries of the Sunset State were not sufficient to keep that name within its confines, for we read that it was known all over America, especially among the bee-keepers who were seeking after new and approved methods of caring for bees, and the latest devices of securing honey. And yet, after all those years have gone, this name is still known and talked about in the Golden West.

John S. Harbison did not begin his bee-keeping career in the State he has since helped to make famous by the

marvelous crops of honey he has secured from his bees. He was born in Beaver county, Pa., in 1826. It was on the parental farm in that State that he imbibed his love for the insects he has done so much for ever since. His father was considered one of the leading bee-men in that part of Pennsylvania, and, though he kept his bees in the log-gums and straw-skeps so common in those days, he managed to make quite a success of the colonies he owned.

The subject of this sketch was not slow in recognizing the merits of the "Week's" hive, which came into use about 1843. The young enthusiast improved upon the hive, and his inventions were so successful in obtaining better results from his bees, that he determined to make further improvements in bee-hives.

And yet, while he was getting larger crops of honey, and carrying his bees through the severe winter with more satisfactory showings than his neighbors, or, for that matter, any one for miles around, he came to the conclusion that to make a complete success of bee-keeping, the apiarist would have to locate his apiary in a country where the conditions of the climate were such that there would be little trouble in wintering the bees. In the early history of California, and the State was yet young, he had heard of the evenness of the climate of that new and then wonderful country. His enthusiasm was such that he had to "make off" for the new Eldorado to try his luck in the gold fields, as well as in the fields of apiculture and horticulture.

He set out for the fruitful fields of California in 1854, and first tried his hand at mining in Amador county. Gold not panning out well, he sought work in a sawmill, but he soon saw that he was wasting his energies at this laborious employment. His tastes were in the line of cultivating the soil and caring for the tolling bee. He, therefore, returned to his native State, and we soon find him on the way back to California with an assortment of trees and seeds, chiefly of fruits. With these he started a nursery near the city of Sacramento. He was also one of the first importers of bees to this State. As the early history of the bee in California was dwelt upon at length by the writer in the last December issues of the AMERICAN BEE JOURNAL, it will not be necessary to again refer to it here. Suffice it to say, however, that Mr. Harbison, though not the first to bring bees to California, was the first to bring any considerable num-

ber of them through with any degree of success.

For a number of years he conducted a successful apiary on the banks of the Sacramento. In 1869 he opened up several apiaries in Southern California. His ranges were in the sage belt, and consequently he reaped harvests the like of which were never before known in the honey line. The newspapers of the world printed and reprinted accounts of the fabulous yields of his colonies. It was in 1873 that he shipped the first full carload of comb honey out of this State. This was followed, a few years later, by a shipment of ten carloads to New York, the major part, I believe, being under consignment to Europe. He owned apiaries at different points in San Diego county, and his colonies at one time ran as high as 3,500. Sometimes the yield from these bees, as stated, was enormous; his greatest yield was 60,000 pounds from 300 colonies.

Often in locating his apiaries he would buy up tracts of land. As these pieces of property were in different parts of the country, he evidently unknowingly got hold of some fine sites for fruit farms. Some of these he sold off, so I have been informed, at good prices during the boom times that prevailed in Southern California a few years ago. These sales, with the nice, snug sums realized from his grand yields of honey, have made Mr. Harbison one of the solid men, financially, of his county. He is now a gentleman of leisure; still, he is not idle by any means, as he is conducting a large grocery business, besides still having 500 colonies of bees and large fruit orchards to look after.

His home at San Diego is an elegant one—one fitting a gentleman of his taste and wealth. He was married in 1865, and of this union there were three children—two daughters and a son. The latter died in infancy.

As a review of Mr. Harbison's excellent "Bee-Keepers' Directory," which was published in San Francisco in 1861, as well as references to the hive and honey section which bear his name, as also his smoker and other inventions, were given in the issues of the AMERICAN BEE JOURNAL before referred to, it will not be necessary to again revert to them. It might be said that all the bee-keeping public has ever heard of this eminent apiarist has been through his "Directory," and as that book has been out of print for a quarter of a century, it is safe to say that the bee-keeper of the present day has but little knowledge

of the man. He has appeared but seldom in print, that is, in the papers devoted to bee-culture, and then very briefly.

By reference to one of the very earliest volumes of *Gleanings in Bee-Culture*, one may find his reason for not taking the public into his confidence. I have often felt as he has in this matter. It is generally the man who has made a success in business that is the least likely to give all the details of conducting that business to the outside world. The knowledge these men have acquired is valuable, and it is hardly to be expected that they will give "trade secrets" away. It is only necessary to look about us to find scores of great manufacturers and artisans who are as "dumb as an oyster" about their occupations. I do not desire to say that Mr. Harbison is a selfish man; on the contrary, he is not. He did much for the bee-keeping world years ago—far more than he was ever repaid for doing.

W. A. PRYAL.

Convention Notices.

NORTH CAROLINA.—The Carolina Bee-Keepers' Association will hold its sixth semi-annual meeting on July 30, in Charlotte, N. C., at the Court House, at 10 o'clock a.m. All persons interested in bee-keeping are invited. Steel Creek, N. C. A. L. BEACH, Sec.

ILLINOIS.—The summer meeting of the Northern Illinois Bee-Keepers' Association will be held at the residence of O. J. Cummings, 2 miles northeast of Rockford, Ills., on Aug. 15th, 1893. A good meeting is anticipated. Everybody is invited. Come and see Mr. Cummings's methods of handling bees. New Milford, Ills. B. KENNEDY, Sec.

INTERNATIONAL.—The North American Bee-Keepers' Association will hold its 24th annual convention on Oct. 11, 12 and 13, 1893, in Chicago, Ills. Not only is every bee-keeper in America, whether a member of the society or not, invited to be present, but a special invitation is extended to friends of apiculture in every foreign land. FRANK BENTON, Sec. Washington, D. C.

Mr. Frank H. Howard, of Garden City, Kans., committed suicide by shooting himself, on June 19th. The cause was a young lady refusing to marry him. Mr. Howard was 28 years old, a bee-keeper and queen-dealer at Garden City, and was advertising in the BEE JOURNAL at the time of his death. Mr. A. S. Parson, of the same place, will continue his business, and see that all just claims are settled. This is the second case of suicide among apiarian people within a few months. Let us hope that it will be the last.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Some Old Colonies of Bees.

While the boys were out selling honey last December, they came across a widow by the name of Young, who had been trying to give a colony of bees away for years, and one party started off with it, and had to set it down and leave it, and told Mrs. Dr. Young that he did not want them, as they stung him fearfully.

Another man got it, moved it off the stand, and he too gave up the treasure. There had been no honey taken out of it for years, as they were noted as terrible fighters—everybody but a bee-man was afraid of them. Willie told the lady he would give her 50 cents for the hive and bees.

"All right," she said; but she did not wish to keep the money unless he succeeded in getting the hive away. To this Willie and Charlie smiled at each other, and told her they would risk taking the bees away.

So without a smoker or veil they slipped a sack over the hive, and laid it in the wagon, leaving the whole crowd in a perfect surprise and wonder as to what kind of boys these were, and who they were, but the boys said not a word, but drove right along from house to house selling honey as though nothing had happened. So much for knowing how to handle bees.

Now for the history that I started out to tell. This hive of bees was given to Dr. Young more than 16 years ago, by the late Judge Andrews, of McKinney. The bees are a fair sample of Italians, and have swarmed nearly every year, the swarms being allowed to run away, or given to any one that would take them. Now, while the combs in this hive are almost as black as tar, and no doubt 20 years old, the bees are as large as any Italian bees I have ever seen. The hive is of the old American pattern,

combs nice and straight, and has a powerful colony of bees.

Who says it will not do to use combs for more than three or four years? This colony has kept itself for 16 years, but has not paid the owner anything. Taking Nature as we find her, and I say that brood-combs that have been kept in a hive occupied with bees all the time, are just in their prime at ten years old. I once found bees in a cedar log that had gone into the tree when it was standing, as some old comb still remained in the stump, and the log had become so rotten that I could pull it to pieces with my hands, and the first combs the bees had used were also rotten, and would not hold honey. But the bees had left the first nest and gone further up the log and made a new nest, and the combs of the new part were so black that they looked blue, and the brood-cells one-third smaller than new comb. Now, taking into consideration the hive, as mentioned above, being 20 years old, and the combs still good, and the bees full size, how old could we expect the combs were that were in the cedar log? When we take into consideration the durability of cedar wood, I am forced to believe that the bees had been in this tree more than 50 years. JENNIE ATCHLEY.

No. 2.—Texas and Her Resources.

CORYELL COUNTY.

Mrs. ATCHLEY:—As promised, I will write up this county for you.

To commence with, I think, and every one else that lives here pronounces, this a very good country. Of course, there are better countries than this. The soil varies from real black to the regular old, large grain sand. The black is not as the black, waxy soil of Hunt and Collin counties, but its produce is just as good. Instead of being waxy, it has a small gravel mixed with it, and it can stand more rain than those other counties I spoke of. In some parts a great many rocks are to be found, though the farmers find a use for them, such as building fences, chimneys, dwellings, walks, flues, wallings for wells and cisterns, and various other things that they can be used for.

We have black, sandy soil, and the white sand, like unto those of other countries, although it never wears out. Any kind of stock can be, and is, raised here; also fowls of any kind. Sheep do well with a small amount of feed through the winter. There is scarcely any land

but what is fenced, except in the western portion, near the line joining Lampassas. We have plenty of prairies, and plenty of timber, also mountains, hills and valleys, and wild flowers all over Texas.

Our timber consists of elm, sycamore, cedar, and several kinds of oak, including the live oak, which is the most plentiful. Walnut, pecan, black-jack, wild plum, black haw, hackberry and chittim; all kinds of berries, grapes, plums and peaches do well. Apples and pears do well in some parts of this county, but not everywhere.

We have some ever-flowing springs that run out from the banks as cool in summer as water can well get without having ice in it. Almost all the wells that are being made now are bored wells. They make them from 25 to 200 feet deep, and a good many artesian wells are to be found here.

Bees do well here, but there are not a great many of them. The people do not take enough interest in them to make money at bee-keeping. All they want is enough honey for family use, and to divide with a few of their neighbors who are so unfortunate as not to have a few colonies of their own. Seldom is one often found who has over a dozen colonies—that is all they need, although if they had it they could sell any amount of honey. I would love to see some good bee-man come to this county, for I think he would do well. We have good schools and good societies of all kinds. Hunting and fishing carry the day now. Squirrels, birds, and rabbits are in abundance. There are scarcely any wild turkeys here now; that day is past, and the country is getting too thickly settled for them, although there are a few here yet. There is plenty of game here that is not eatable, such as raccoons, possums, wild cats, foxes, wolves, coyote wolves, and sometimes a panther, though the latter is not so plentiful.

The healthiness of this country is very good, or has been so far since I have been here; but every one is crying for a good medical man. We have plenty of so-called medical men here, but not many good ones, and those that are good are kept busy because they go so far to see their patients.

I have mentioned everything of much interest, but if there is anything you want to know that I have not told, just let me know, and I will answer all questions, or try to do so, at least.

MRS. JOSIE A. WEBB.
Turnersville, Tex.

LANGSTROTH FUND.

[For years, bee-keepers have felt that they owed the Rev. L. L. Langstroth—the Father of American bee-culture—a debt that they can never very well pay, for his invention of the Movable-Frame Hive which so completely revolutionized bee-keeping throughout all the world. In order that his few remaining years may be made as happy and as comfortable as possible, we feel that we should undertake a plan by which those bee-keepers who consider it a privilege as well as a duty, might have an opportunity to contribute something toward a fund that should be gathered and forwarded to Father Langstroth as a slight token of their appreciation, and regard felt for him by bee-keepers everywhere. No amount above \$1.00 is expected from any person at one time—but any sum, however large or small, we will of course receive and turn over to Father L. All receipts will be acknowledged here.—Ed.]

List of Contributors.

Previously Reported	\$3 00
Mrs. M. E. Springer, Wilmette, Ills.	50
E. J. Wheeler, Hebron, Ind.	25
John Royer, Clarion, Iowa.....	50
Mrs. Jerusha Zug, Perhapsa, Wis.	25
Jacob Smith, Rengoma, Ills.....	50
Total.....	\$5 00

The World's Fair Women

"Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 60 cents, or give it for two new subscribers to the BEE JOURNAL at \$1.00 each.

Bee-Keeping for Profit.—We

have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for \$1.15.

Bicycles are getting to be very common now-a-days. We have two for sale, and any one wanting a bargain in a good bicycle, should write to the office of the BEE JOURNAL.



Feeding Bees for Extra Comb in the Fall, Etc.

Query 879.—If feeding in the fall beyond winter requirements in order to produce extra comb is practiced, what length of breeding time before cold weather, undisturbed by other work, should be allowed a colony in order not to impair its wintering and springing strength?—Colorado.

I do not know.—JAS. A. STONE.

I do not know.—MRS. L. HARRISON.

I can't answer this.—EUGENE SECOR.

I would not produce bees in the fall to produce extra combs.—E. FRANCE.

My brain is too feeble to fathom your meaning, Mr. Colorado.—J. M. HAMBAUGH.

The feeding to produce comb should give all the brood required.—G. M. DOOLITTLE.

I should prefer to have all brood hatch out before cold weather begins.—JAMES A. GREEN.

I do not know. I would not feed in that way. It will not pay.—EMERSON T. ABBOTT.

I don't know. What do you want to produce comb in the fall for, anyway?—C. C. MILLER.

I never tried the experiment; it would be too expensive to suit my pocket.—R. F. HOLTERMANN.

Such unseasonable work will impair the strength of the colony, no matter how much you stimulate.—P. H. ELWOOD.

Just the longest time that it is possible to give them. Do all such feeding while the weather is yet warm.—C. H. DIBERN.

In Michigan it is always safe to feed up to the first frost, about Sept. 20th. It is well to finish up then as soon as may be.—A. J. COOK.

I do not think that fall breeding will impair the chances of a colony wintering well, if discontinued at the approach of frosty weather.—S. I. FREEBORN.

I have kept bees breeding here in Central Michigan until the first of November, with only the most satisfactory results so far as I could see.—R. L. TAYLOR.

In this climate they should not be disturbed after September, I think, to produce the best results. Feeding to produce comb should not be practiced after August.—J. H. LARRABEE.

It should be done when the weather is warm, and some weeks in advance of cold weather. It should be borne in mind that bees build comb very reluctantly out of season.—J. P. H. BROWN.

Don't feed in the fall at all, unless it is necessary to feed for winter stores. When feeding back honey to have sections finished, the work to be profitable must be done immediately after the white honey harvest.—G. W. DEMAREE.

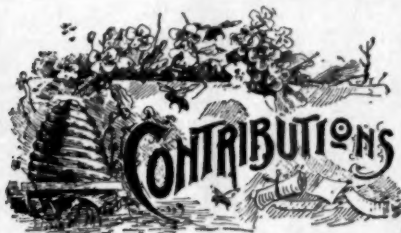
My opinion is, that a colony should be fitted for winter as early as the middle of September, or as soon as golden-rod ceases to yield nectar. I speak only for myself and my own locality (Mass.). Further south, the time may be later.—J. E. POND.

Little, if any. A "double-barreled" colony is not needed in winter; a moderately sized colony of young fall bees is proper; but late, cold weather breeding is dangerous, and should be avoided. Produce your extra combs in season.—WILL M. BARNUM.

I do not think that feeding in the fall to produce extra comb is desirable. It will not pay unless there is not comb enough to hold the winter stores. I would not want a colony to continue breeding later than the middle of September.—M. MAHIN.

All young bees reared in the fall should have a cleansing flight or two before confined for winter. If not, they will become uneasy and disturb the entire colony. When feeding is stopped, the queen will stop laying, and you should allow 30 days thereafter for the young bees to hatch and have a flight before confined by cold weather.—MRS. J. N. HEATER.

I should think that while you were feeding, if your bees were not crowded too much, they would rear sufficient brood to provide them with plenty of young bees for winter and spring. Bees ought to have a couple of months to breed up in at any season of the year, if they are low in bees. As we have no winter troubles, my opinion is that you had better not feed too long in the fall, though.—MRS. JENNIE ATCHLEY.



**Mr. McEvoy's Claims of Discovery
of the Cause and Cure of
Foul Brood.**

Written for the American Bee Journal
BY S. CORNELL.

I have read with a good deal of interest the biographical sketch of Mr. Wm. McEvoy, by Prof. Shaw, published in the AMERICAN BEE JOURNAL for March 30, 1893, page 393. With all that is said in regard to Mr. McEvoy's industry, his perseverance, and his skill in the management of an apiary, I heartily agree. I would add that he is a very close and accurate observer of what takes place in the interior of the hive, under varying conditions, so far as such observations are possible with the naked eye.

Mr. McEvoy's extensive experience with foul brood enables him to detect it readily, and to form an opinion as to its malignity. He undoubtedly has a method of curing the disease, which he advocates with such persistency and zeal, that bee-keepers whose apiaries are suffering from foul brood, often catch his enthusiasm, and effect cures, where, under other circumstances, they would not have sufficient confidence to make the necessary effort. As Foul Brood Inspector, his suavity and tact enable him to enforce the law with less friction than would, perhaps, occur with many others. For these reasons I have been one of Mr. McEvoy's supporters for the position of Inspector, ever since the Foul Brood Act went into operation, and I shall probably continue to support him, as long as he is willing to accept the appointment, and work under the requirements of the Act.

My present object is to show that Prof. Shaw makes erroneous claims as to what he affirms to be discoveries, made by Mr. McEvoy, for the first time in the history of bee-keeping. I refer to the alleged discovery of the cause, and the cure of foul brood. By contending that

"this is the most valuable discovery of modern times in regard to the apiary," that it is one for which the discoverer "is deserving of the gratitude of his countrymen," and that "it will bring him fame wherever the Anglo-Saxon tongue is spoken," Prof. Shaw assumes responsibility for the genuineness, and priority, of the alleged discovery. If these claims had been made by an obscure writer, they might be allowed to pass unheeded, but, if permitted to go unrepudiated, when made by a gentleman occupying the position of Professor of Agriculture in the Ontario Agricultural College, Canadian bee-keepers would be laughed at the world over.

Prof. Shaw states that before 1875, "the ablest scientists in the bee-keeping world had been laboring earnestly to get at the root of the great bee-scurge, but in vain." Evidently the Professor has not kept himself posted in regard to modern bee-keeping. A reference to Cook's "Manual of the Apiary," page 404, 13th edition, would have shown him that prior to 1875, Prof. Cohn, of Bresleau, Germany, had "got at the root of the great bee-scurge," and that he found it to be a specific germ, which has since been named "bacillus alvei." This germ is now recognized as the true cause of foul brood, by all leading bacteriologists.

The alleged cause of foul brood, for the correctness of which Prof. Shaw takes the responsibility, is described and explained by Mr. McEvoy as follows: "Foul brood is a disease that is caused by the rotting of uncared-for brood. The brood that is fed in the cells, where brood lately rotted down, will have to consume their food with the remains of decayed brood, and this is the real and only cause of foul brood." Let us examine the validity of this theory.

It is well known that the rotting, or the putrefying of animal matter, is caused by the action of septic microbes, of which bacterium termo is the most common. It is also well known that these septic microbes cannot exist in living blood and tissues. If Prof. Shaw's contentions were true, then it follows that bacterium termo, which causes putrefaction, not only continues to live, when absorbed by the larvæ with their food, but becomes transformed into the pathogenic microbe, bacillus alvei, which causes foul brood. But it is known to bacteriologists that "a septic microbe has not been proved to be transformed into a truly pathogenic microbe."

Mr. J. J. Mackenzie, Bacteriologist of

the Provincial Board of Health, recently investigated this matter experimentally, with reference to the cause of foul brood, and he states his conclusions thus: "There is a distinct difference between foul brood and ordinary putrefaction." He leaves it to be inferred that it is as unreasonable to argue that "an ordinary microbe, which produces putrefaction, may be metamorphosed into the specific cause of foul brood," as "to expect that a Carniolan queen might lay an egg which would develop into a bumble-bee."

Cheshire says that "bacterium termo is no more like bacillus alvei, than a loaf of bread is like a shoulder of mutton." If Prof. Shaw were to teach his students in agriculture that, instead of always "yielding seed after its kind," the wheat plant sometimes becomes transformed into a different plant, known by the name of chess, he would be laughed at by every intelligent farmer in the country; and yet such teaching would not be more erroneous than the contention that, in the organism of the bee-larva, the microbe of putrefaction not only lives, but becomes transformed into the microbe of foul brood.

The second part of the "great discovery," relating to the cure of foul brood, Mr. McEvoy describes as follows:

"In the honey season, when bees are gathering honey freely, remove the combs and shake the bees into their own hives in the evening; give comb foundation starters, and let them build comb for four days. In the evening of the fourth day, give them comb foundation to work out, and then the cure will be complete." Familiarity with the literature of bee-keeping would have saved Prof. Shaw from the error of claiming this cure as a discovery made for the first time in 1875. With the exception of one or two variations, a cure essentially the same was practiced and published by Seydell in 1767, by Voight in 1775, by Bonner in 1789, and by Della Rocca in 1790.

In Quinby's "Mysteries of Bee-Keeping," published in 1865, the method of cure by transferring the bees to empty hives is given, and, like Mr. McEvoy, Mr. Quinby did not starve the bees, but allowed them to fly, and gather honey, thus keeping them in as vigorous health as possible.

There is one variation in Mr. McEvoy's cure which, so far as I know, is his own, and it is a good one. I refer to the removal of the new comb at the end of four days, and starting the bees to build comb afresh. This gives the bees a

longer rest from nursing, during which the diseased nurses either die off, or become too old to continue to secrete and digest food for larvae, making the success of the cure more certain.

No one who knows Mr. McEvoy will for a moment doubt that he worked out the cure of foul brood without having any knowledge whatever of what had been previously done by others. Such cases often happen. In the sketches of his life, now running in *Gleanings*, Rev. L. L. Langstroth tells us that after reading a translation of Dzierzyn's work, he "soon perceived he had been anticipated in more than one important discovery." Cheshire had similar experience in several instances; so Mr. McEvoy is in good company. That he should discover the method of cure independently, is highly creditable to his ability as an investigator. That he was not aware of what had been previously discovered by other investigators is his misfortune.

From the foregoing it is evident that so far as it relates to the cause of the disease, Prof. Shaw's "great discovery" dwindles down to no discovery at all; and that as regards the cure of the disease, the discovery was made more than a century before, and the method of cure has been practiced by bee-keepers, from time to time, ever since.

Before closing, I wish to protest against the imputation thrown by Prof. Shaw upon "those best versed in bee-lore," that they are unwilling to appreciate a good thing on account of the source from which it may emanate. Bee-keepers are at least as willing as those engaged in any other industry, to give due credit to one of their number for any valuable discovery he may make, no matter how little he may be known to fame.

The editors of *Gleanings* and the *Review* are capable of defending themselves. The readers of these papers know that both Mr. Root and Mr. Hutchinson are well posted on the foul brood question. It does not require much effort of the imagination to believe that these gentlemen may have had good reasons for declining to publish Mr. McEvoy's articles, besides the one supposed by Prof. Shaw that "no good thing could come out of Woodburn."

Before his appointment to the important position which he at present so worthily fills, Prof. Shaw rendered good service to the agricultural interests of this country, as editorial manager of the *Canadian Live Stock Journal*. "Even Homer nods." Bee-keepers will be de-

lighted to welcome Prof. Shaw to their ranks, and to hear from him from time to time through the bee-papers, knowing from his reputation, that when he undertakes to investigate a subject, the work is always thoroughly done.

Lindsay, Ont., April 19, 1893.

The Farmer's Honey Crop— What About It?

Written for the "Stockman and Cultivator"

BY EUGENE SECOR.

I am sorry to know that this is a minus quantity in a majority of cases. To bring about a different state of facts is the object of this essay.

If honey is a desirable article of food, or a luxury worth setting before our family and friends, the question is, "How shall I obtain it?" Shall the farmer who owns the range over which bees forage, raise hogs and cattle and grain for market, and with the proceeds thereof buy his honey, or shall he keep a few bees himself and be independent of the grocer or specialist in honey-production?

Some argue that it is better to leave the production of honey to the specialist altogether. They say he can produce it more cheaply than one who has other business. That is true in some sense. It is also true that the market gardener can raise cabbage and strawberries more cheaply than the farmer usually does. Shall he therefore leave the growing of all garden truck to the specialist, and buy his vegetables and fruits? The main difficulty in both cases is, if the farmer does not produce them himself, his family is very liable to go without the greater part of the year.

I have noticed that those farmers who think they cannot afford to "potter" with a garden or bees, have few of the luxuries which these furnish. Luxuries did I say? Necessities, if health, comfort and happiness count for anything in this world.

Honey is a luxury, but it is healthful and nourishing. It is not a necessity in the usual sense of the word, nor is any other sweet. Sugar is so generally used in this country that we regard it as a necessity. But it is not. I suppose there are millions of people who scarcely taste sugar. And there are thousands of families, largely farmers, too, in this country, who scarcely know the taste of honey. They do not keep bees, and when they wish to gratify the taste for

sweet, buy sugar or glucose syrup, because it is cheaper in price than honey.

But why shouldn't the farmer produce his own honey? Is it because of the belief that greater skill and knowledge is required to make this branch a success than other departments of the farm? If this is the prevalent notion I wish to dispel it. It does require some study and some skill, but not more than to raise good stock, or to grow good crops. If a farmer raises nothing but scrub cattle and hogs, and gets a good crop of corn only when everything is favorable, he will probably never have much honey to sell, and will doubtless conclude that "it's all luck, anyhow."

But if he knows a good cow from a poor one, and knows how to raise the good one; if he knows how to get a good crop of corn when many of his neighbors have only nubbins, he can master all the intricacies in bee-keeping without lying awake nights, or infringing on his time in harvest.

I believe the person who gets the most pleasure out of producing honey is the one who does so in conjunction with some other business. His whole soul is wrapped up in the one dollar-and-cent idea. It is chiefly produced for his own table, or to give pleasure to his friends.

I wish, however, to caution the reader, if he thinks seriously of getting bees, to inquire if his locality is adapted to the production of honey. Not every prairie farm is an ideal bee-paradise. If no linden grows within a mile or two, and if white clover is not plentiful enough to yield a surplus, then two of the chief sources of white honey in the North are wanting. Still there may be an abundance of other flowers for a few colonies. Spanish-needle, heart's-ease, the asters, and a great variety of other wild flowers can be utilized and made profitable if not too many colonies are kept in one locality.

If a person who wishes to keep bees has had no experience, he should not buy more than a colony or two to start with. Spring is the best season to purchase. Buy as near home as possible. Talk with some one who has made the subject a study. Buy a good book on bee-keeping, and after a little, if the subject proves interesting, subscribe for a bee-paper. You will grow with the business naturally, furnish your table with a dainty luxury that takes the places of sauces, is always acceptable to company, and at the same time the study of the subject will prove to be both pleasant and profitable.

Forest City, Iowa.

Changing the Loose Hanging Frames to Fixed, Etc.

Written for the American Bee Journal

BY DR. C. C. MILLER.

J. W. Tefft has sent me a sample of his plan of changing common hanging frames to fixed frames. He nails on a little strip of wood on each side of the end-bar at the upper end, making it after the fashion of the modified form of the Hoffman frame favored by Mr. Root, that is, on one side of the end-bar is nailed a square piece, and on the other side a three-cornered piece, thus making a sharp edge of one frame fit against the flat surface on another frame. Those who want to change loose to fixed frames, will not find it difficult to follow this plan, although I hardly believe the sharp edge will be permanently favored by those who are troubled with much propolis.

An easier, although no better way, is to nail a piece on only one side of the end-bar. Suppose your end-bar is $\frac{3}{4}$ -inch in width and you want your frames to hang $1\frac{1}{2}$ from centers. That leaves a half inch between one end-bar and its neighbor. So, nail on one side of one end-bar, near the top, a piece perhaps $2\frac{1}{4}$ inches long, half an inch wide, and the same thickness as the end-bar, only nail it on the opposite side. I arranged some in this way that give very good satisfaction.

CAN BEES PUNCTURE FRUIT?

On page 759, Geo. A. Stockwell says they can, adducing as proof the fact that they can bite hard wood. At one time I held the same view, and expressed it in a convention of bee-keepers. The younger Dadant brought me up standing, somewhat after this fashion—I can't give the words, but this is the idea:

"You can bite in two a piece of broken plaster from the wall. That wall beside you is of the same material, therefore you can bite it. Now stand facing the wall, and bite a hole in it."

He had me.

Every bee-keeper of experience knows that bees can and do gnaw wood, but that doesn't prove that they can gnaw sound fruit. The shape has something to do with it. You might find it a difficult thing to bite into a pumpkin or a foot-ball, although you might readily bite into the same material if it were different in shape. The assertion that sound fruit has no attraction for bees,

"needs confirmation," as the newspapers say. If they tear open some flowers to get at their sweets, why would they not tear open the skin of fruits, if they could?

Marengo, Ill.

Queen-Breeders and Queen-Buyers—Suggestions.

Written for the American Bee Journal

BY J. F. EGGERS.

Accidents will happen in the best of families. So will some of our best colonies turn up queenless in the early spring. Being anxious to save these colonies we order queens at once from a breeder whose location and reputation would seem to warrant the prompt filling of our orders. We count the days, expecting the queens by return mail, for the old bees will die, and of the young bees there are few, if any. Even if queen-cells are present, the drones are missing, or so few in early spring that there is little chance for young queens to become fertilized.

Return mail brings us the notice that our order has been received, and will be filled "in a few days." We would rather have received the queens than the notice, but as the queens are to follow in a "few days," we go home contented, though we know that each day lost means so many hundred or thousand bees less in our queenless colonies.

We go to the post-office every day for a week or two, until at last we find, "Mortal hopes defeated and o'erthrown; are mourned by man, and not by man alone," for our queenless colonies have reached the stage where comes in "The good old rule—the simple plan, that they should take who have the power, and they should keep who can." Robbers will soon finish weak queenless colonies, and when at last the queens arrive, they are too late to be of any use to us.

Now I do not wish to blame or decry queen-breeders, although I have been served thus repeatedly. I know the nature of their business is such that disappointment cannot always be avoided, but as we bee-keepers are laboring to advance our calling and improve our methods in every conceivable way, should we not find a way out of this dilemma, which is so trying and ruinous to all concerned?

If queen-breeders would return the order and money when they see that they cannot fill the order in less than

two or three weeks, the apiarist might gain time by ordering elsewhere, or make use of his queenless bees otherwise, instead of waiting from day to day until they are beyond redemption.

We, however, wish to preserve the colonies, and should not give up anything of value if it can be managed so as to retain it. Let us go to the hive and note the energy, the united efforts of the little workers. We know what they accomplished by the many working together as one. Could not the queen-breeders of our country form a kind of "colony," and work together so that if one is unable to fill all orders promptly he might send some to his nearest competent neighbor? Rules and regulations would have to be worked out carefully, and be understood by all members of the "Queen-Breeders' Colony." Then, with the unity, industry, good-will and interest for the welfare of their "colony," that is displayed by our pets, the bees, there ought to be an improvement made which would benefit both the breeders and the buyers of queens.

Grand Island, Nebr.

Experiments in Apiculture Made in 1892 at the Michigan Experiment Station.

Reported to the Department of Agriculture

BY J. H. LARRABEE.

(Continued from page 19.)

WAX SECRETION.

To determine the amount of honey consumed by the bees in secreting one pound of wax, this experiment, first undertaken in 1891, was repeated this year. As the conditions were much more favorable, the results were very gratifying. There was entire absence of a natural honey-flow, the weather was favorable, the colonies were of the same strength, and in prosperous condition, they took the food rapidly, and built the comb readily. The result gives a less amount of honey as necessary to be fed the bees in order to have one pound of wax secreted than was obtained in this experiment last year. This was to be expected because of the more favorable and exact conditions.

Two colonies were taken which I have designated as Nos. 1 and 2. No. 1 was given a virgin queen, and no comb or honey. No. 2 was given a virgin queen and empty combs. It was noticed that the bees did not fly from either of these

hives as vigorously as from the others of the apiary, and that No. 1 was more quiet of the two. Twenty-four and a half pounds of food were given, and almost exactly one pound of wax was secreted by No. 1. By weighing the combs before and after being melted, and taking the difference, the amount of pollen was ascertained. In both colonies the young queens had begun to lay, having been fertilized during the ten days the experiment was in progress. I now feel confident that more careful work on the part of others who have undertaken to solve this question will give practically the same results as are summarized below:

COLONY No. 1.

	Lbs.	Oz.
Weight of bees.....	7	5
Gross weight, Aug. 2, with bees.....	27	8
Gross weight, Aug. 12, with bees.....	43	10
Gross gain in weight in 10 days.....	15	2
Feed given.....	24	8
Minus honey extracted.....	12	8
Leaves honey consumed.....	12	
Honey consumed by No. 1 in excess of No. 2: 12—4—8 pounds.....		
Wax secreted by No. 1.....	15½	
Pollen in combs at close.....	1	8
Honey, wax, and pollen removed (8 lbs. honey consumed in secreting 15½ ounces of wax).....	14	15½

COLONY No. 2.

	Lbs.	Oz.
Weight of bees.....	7	3
Gross weight, Aug. 2, with bees.....	34	4
Gross weight, Aug. 12, with bees.....	56	3
Gross gain in weight in 10 days.....	22	4
Feed given.....	24	8
Minus honey extracted.....	20	8
Leaves honey consumed.....	4	
Honey consumed by No. 1 in excess of No. 2: 12—4—8 pounds.....		
Wax secreted by No. 1.....		
Pollen in combs at close.....	2	
Honey, wax, and pollen removed (8 lbs. honey consumed in secreting 15½ ounces of wax).....	22	8

PLANTING FOR HONEY.

There were in bloom at the station this season three acres of sweet clover (*Melilotus alba*) sown in June, 1891. It was sown upon rather poor clay soil, yet it made a fair growth last fall, and came through the winter in good condition. It began to bloom July 8, and continued in bloom until the 20th of September. The period of greatest bloom and honey secretion was from July 20 to Sept. 1. It grew rapidly, and was very rank, reaching a height of about six feet. The amount of bloom was great, and the bees were continually busy upon it, yet during the period from July 24th to Aug. 10th, while it

was in full bloom, and while all other natural sources were absent, no honey of any appreciable extent was gathered, and the hive upon the scale lost in weight. Probably some honey was obtained during the season from this sweet clover, but in such limited quantities as to make any estimate of the value of the plant as a honey-producer impossible. At the present time the ground is covered with brush, so that labor will be necessary in clearing the land before plowing can be done.

With the idea of obtaining an opinion of the value of sweet clover as a silage plant, an alcohol barrel was filled with the cut stalks, solidly packed, and sealed tight. This was done on July 14th, just as the clover was getting fairly into bloom, and while the stalks were yet tender and nutritious. On Sept. 23rd the barrel was opened, and the ensilage was fed. A horse that had previously eaten corn silage ate it very readily, but another horse and a cow that had never eaten silage would not touch it. Several experts upon the subject pronounced it excellent. There is no doubt but that it would be a very desirable plant for the purpose if the feeding value per acre could be made equal to that of corn. An estimate made from the amount cut for silage gave between 6 and 7 tons per acre. Although its feeding value may be much higher than that of corn, it is still doubtful if it will pay to use it for this purpose alone, from the above estimate.

In concluding these experiments in planting for honey carried on by Prof. Cook, and now concluded for the present, I desire to say that no results have been obtained with any plant sown or planted for honey alone that will warrant the bee-keeper in expending money and labor in this direction. Bee-keepers have in the past spent much time and money in the effort to cultivate some plant for the honey the bees may obtain from its flowers. In no case coming under my observation have these efforts been a success, and the practice has never been continued at a profit. Therefore, let me caution all apiarists against spending money in the attempt to cultivate at a profit any flower for honey alone. Bee-keepers should cease these useless efforts and turn their attention more persistently to extending the area of all wild honey-producing plants, and urging upon all the superiority of Alsike clover and Japanese buckwheat as farm crops, and the linden as a shade tree.

Agricultural College, Mich., Nov. 17.

(Concluded next week.)

Bees Swarming Out—Treatment of Foul Brood.

Written for the American Bee Journal

BY RANDOLPH GRADEN.

I have seen the question asked in the BEE JOURNAL more than once, as to what caused the bees to swarm out and leave their hive with brood and plenty of honey in the spring of the year, but I have as yet not seen it fully explained. There are several causes, but the principal one, especially where the bees have been wintered upon the summer stands, is cold weather; for in the spring when the bees are rearing brood rapidly, and cold, windy, cloudy weather, too cold for the bees to fly, sets in for several days, and some times as much as eight or ten days at a time, and the bees are greatly in need of water, and also pollen, they will venture out for water and pollen, and become chilled and perish. Still the brood is hatching out in the hive, and in need of water, and the old bees become less and less every day, so that in a few days the older bees are almost all lost, which, of course, raises a commotion in the hive, so much so that when the weather turns warm suddenly, and the sun shines warm, the bees make a rush to get out of the hive, and in the excitement the queen and all rush out, and very often the queen gets lost, and the bees being nearly all young, rush for some other hive, and enter it, or scatter about; and if the queen is not found, all is lost except the hive and contents, which may be used to hive an early swarm of bees, provided, however, that such hive must be looked after, as the moth-miller may destroy the combs.

Still, some may think after reading Mr. McEvoy's article in the AMERICAN BEE JOURNAL for May 11th, that such hives will become foul broody. Any fair-minded bee-keeper knows that cannot be true, otherwise there would not be an apiary in the length and breadth of our land, that contained a dozen colonies of bees or over, any great length of time, but what would become foul broody sooner or later. Still, there are many bee-keepers, yes, old bee-keepers, that say they never saw foul brood.

If I am asked as to how foul brood originates, I will have to say as does Dr. Miller, "I don't know," and as Prof. Cook would say, "How does diphtheria and scarlet fever originate?" which was about the substance of a reply he gave me when I asked him that question some time ago.

How to get rid of foul brood is a very

easy question for me to answer, as I would sooner rid a colony of bees of the disease than to transfer a colony of bees from an old box-hive to a movable frame hive by the method of taking the box apart and tying the combs in the frames, etc. The reason I do not give my method of curing foul brood in this article, will be given in my next article on that subject, which will soon follow, but I will say, however, to those who have my method of treatment, to follow it, and not be misled by Mr. Evoy's article or method.

I have his method in Bulletin No. 33, of the Department of Agriculture, and dated Toronto, July 15, 1890, which method I happened to try while experimenting with the disease, which was precisely the same except that I used no comb foundation, and instead of leaving the bees four days I left them six days; still the colony became diseased again soon after; but I am happy to say that that colony of bees and method of treatment led me on to the discovery of my method, in which I have never failed to cure the disease.

Wayne Co., Mich.

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
July 20.—Carolina, at Charlotte, N. C.
A. L. Beach, Sec., Steel Creek, N. C.
Aug 15.—Northern Illinois, at Rockford, Ill.
B. Kennedy, Sec., New Milford, Ill.
Oct. 11, 12, 13.—North American (International), at Chicago, Ill.
Frank Benton, Sec., Washington, D. C.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller....Marengo, Ills.
VICE-PRES.—J. E. Crane.....Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York...Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

A Binder for holding a year's numbers of the BEE JOURNAL we mail for only 50 cents; or clubbed with the JOURNAL for \$1.40.

The Iowa State Fair will be held at Des Moines on Sept. 1st to 8th, 1893. We have received a copy of their Premium List, which may be had by addressing the Secretary, John R. Shaffer, of Des Moines, Iowa. The Apilary Department of the Fair is in charge of Mr. F. N. Chase, of Cedar Falls, Iowa, and the liberal list of cash premiums are as follows:

BEES, PRODUCTS, SUPPLIES AND PLANTS.

NOTE.—Produced by the exhibitor. In awarding the premiums on the different entries of bees, the quality of queens and bees will be considered. The bees should all be in one-comb, observatory hive, with glass on both sides. No premium will be paid on bees that are not pure, or on bees entered in classes in which they do not belong.

Italian bees, in observatory hive.	\$5 00	\$3 00
Carniolan bees, in observatory hive.	5 00	3 00
Syrian (Holy Land) bees, in observatory hive.	5 00	3 00
Dalmatian bees, in observatory hive.	5 00	3 00

NOTE.—In awarding premiums in the different entries of honey, the Judge will give equal consideration to the quality of honey, and to the style of packages in which it is exhibited, as regards beauty and desirableness for purpose of marketing.

Exhibitors at time of making entry must file a statement with the Secretary, that the honey they exhibit was produced in their own apiaries.

Best and largest display of comb honey.	\$25	\$10	\$5
Best and largest display of extracted honey.	25	10	5
Best, largest and most attractive display of comb and extracted honey, wax, bees, implements, etc.	25	15	10
Best case comb honey, clover or linden.	5	3	
Best case comb honey, fall flowers	5	3	
Extracted honey, clover or linden, 20 pounds.	5	3	
Extracted honey, fall flowers, 20 pounds.	5	3	
Best display of beeswax, not less than 50 pounds.	8	4	
Display honey plants, pressed, mounted and labeled.	5	3	
Best display culinary art, sweetened with honey.	5	3	

All bee-keepers and all manufacturers of hives, frames, sections and foundation, and of bee-keepers' implements and materials are requested to exhibit the same. The best facilities will be afforded exhibitors to show their goods to advantage. It is the custom of the society not to offer cash premiums on implements; hence, none are offered in this department, except as noted in display. Diplomas may be awarded, subject to the approval of the Board, on recommendation of the Judge examining the articles.



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Splendid Prospects for Honey.

Bees have done very little here this spring, as it was too cold and windy. Horsemint is yielding some honey now, though I do not expect much from that source, as there is very little of it. Cotton, sour-wood and the gum-tree look flattering at present, and I hope for a good crop yet. Wild morning-glory is springing up by the millions, and it hardly ever fails to yield a good crop. Last year one of my best colonies gathered 80 pounds of surplus from it, and it was the finest honey I ever saw.

Farm crops are fine here. Corn is in full roasting ear. Cotton will be in full bloom in two weeks. Peach and pear trees are loaded with fruit. So we have nothing to grumble about.

I wish to congratulate Mrs. Atchley for her interesting department in the good old AMERICAN BEE JOURNAL. I want to go to the World's Fair next October, if I can get away, and expect to have a grand time. I hope Mr. A. I. Root and Dr. Miller will be there, and oh, what a grand time we will have!

W. S. DOUGLASS.

Lexington, Tex., June 18, 1893.

Seven Months Without a Flight.

Yesterday was the first day that my bees did not want to rob combs that I have been handling more or less all spring. It is raining to-day (June 9th), and prospects are good for white clover, raspberry, blackberry, and other bloom of less consequence, but it is going to take the cream of the white clover season to build up what colonies are left after the most disastrous spring I have seen.

With Aug. 31, 1892, closed the best honey season I have ever seen. September was cold and wet, bees stopped breeding, winter came very early and stayed—well, it was May 7, 1893, before all my bees were out of the cellar. I put 98 colonies away in the fall, and lost 30 per cent. in wintering, and fully as large a percentage since. Up to a week ago bees would act as though they were being poisoned, so many crawling and tumbling around on the ground, and a great deal of brood perished for the want of heat and food. I kept doubling up, but

bees would vanish, and they beat all previous records in that line.

I see some bee-keepers record their bees without a flight for 4½ and 5 months, but what would they think of bees without a flight for over 7 months? They would probably think that we needed to study the wintering problem in earnest. After the past season's experience, I am more than ever in favor of young bees for wintering, but as there are so many other requirements needed for the successful wintering of bees here in the North, the beekeeper is fortunate indeed to be able to combine all of them at the approach of a long winter.

WALTER HARMER.

Manistee, Mich.

Sowing Buckwheat for Honey.

On page 821, Mr. J. L. Hersey wonders why his bees don't work on buckwheat (June 5th). Now, I am only a starter, but I continually experiment and note results. In this way I expect to bring my rising apiary to the highest standard, and obtain the most honey possible with the least labor. I have therefore concluded that it won't do to sow buckwheat for honey earlier than July. Bees will never work on it while they have anything else. Even if they do, it wouldn't be very practical to have them store the dark, strong honey with the clover and linden.

The idea of sowing buckwheat is to give the bees something to work on during the drouth in the hot summer months. Mr. Root sows it about July 15th, whenever he sows. The Japanese variety is the best; sow 3 pecks per acre. It is best to use the drill. Buckwheat is excellent for artificial pasturage. Good ground makes good yields.

Any questions on the above, by readers of the "Old Reliable," will be cheerfully answered.

J. C. WALLENMEYER.

Evansville, Ind.

An Experience with Bees.

On June 15, 1892, I received by express 6 nuclei. The boxes were broken, and many of the bees were lost, and most of those not lost were dead, but the brood was all right, and I saved five of the six queens. I bought two more queens, and built up to 13 colonies, which I wintered successfully on the summer stands, in chaff hives. Early in the winter the brood-nests of two colonies were robbed, leaving what they did not carry off exposed fully to one of our bitterly cold wind-storms. In March I found the bees still struggling for existence, but queenless. I got a couple of queens early from Louisiana, and all are now doing very well.

The first of April all started out like a boom—brood, pollen, honey, etc.—but the latter half of that month gave the bees a black eye. The morning of May 1st the mercury stood 11 degrees below freezing; the flowers were all killed, and things generally looked discouraging. On Decoration

Day scarcely a wild flower was to be found. We had no rain for months, and no water in the river with which to irrigate; but all at once down came the river and filled the irrigating ditches, and up came the clouds and gave us a thorough wetting of rain-water. Talk about a "desert blossoming like a rose!"—a rose is no name for it when the alfalfa is in bloom, and the bloom is already beginning to show, but we have already lost one crop of hay by reason of no water. Had the Arkansas river got down as early as usual, we would have secured during the season four crops of hay, or two of seed. JAMES H. WING.

Syracuse, Kans., June 3, 1893.

Having a Good Honey-Flow.

We are having a good honey-flow now, and bees are doing well. E. S. MILES.
Denison, Iowa, July 6, 1893.

A Beginner's Experience.

I purchased 7 colonies of bees last winter and lost 3; one starved to death, another perished with snow blowing in the hive (bees are left out all winter here), and the other was weak, and the ants got in and destroyed them before I knew that they could do it. The remaining 4 colonies are doing well. They filled up with bees and honey, and I think they are just waiting for a fine day to swarm.

I am well pleased with the BEE JOURNAL, and do not know how any beginner could get along with bees without it. I have been one of Mrs. Atchley's pupils, and always glad to read anything from her, and feel myself indebted to her and all the rest of those good people who are so ready to help the beginner, though perfect strangers to each other. J. T. BROWN.

Sumas, Wash., June 14, 1893.

Bees Doing Better this Year.

My bees have not done anything to speak of for two years, but are doing better this year. W. A. HARRINGTON.
Irene, Ills., July 2, 1893.

Too Much Rain and Swarming.

Last year I extracted honey the first week in June, and got at least 30 pounds of fine white clover honey per colony. Then the daily rains set in for 60 days, and the nectar was kept washed off the flowers. This year, the late spring retarded the honey-flow, and so far I have had no honey, and the bees have only what little they had stored. Since the 2nd of this month the rains set in again, and now there is little or no honey.

Can any of the readers tell me whether they are any better off? and what can I expect later on in the season?

I attribute this deficiency in the honey-flow due greatly to so much swarming during the month of May (I have nearly

doubled the number of my colonies), as I believe one works to the detriment of the other—the more swarming, the less honey. My 52 colonies of Italians are very strong. I have not had a swarm since May. I hope soon to be able to report better prospects.

P. E. COUVILLON.

Carencro, La., June 24, 1893.

From Four Increased to Nine.

I had 4 colonies the first of May, and they have swarmed five times. I now have 9 colonies. The first swarm came out on June 6th. I think the BEE JOURNAL is very instructive and interesting to any one who keeps bees.

GEORGE RACKLEFF.

Woodfords, Me., June 27, 1893.

Storing Surplus Honey Fast.

Bees wintered badly here, the loss being from 80 to 100 per cent. My bees are storing surplus honey faster than ever before, from alfalfa. I began taking off sections to-day. Those of us who saved our bees expect to reap a good harvest. Honey will bring a good price this year, if put up well. J. S. SCOTT.

Springville, Utah, June 28, 1893.

Bees Doing Well So Far.

The bees have been doing quite well so far this season, but the weather is so dry that they cannot gather much honey any longer unless we have some rain. Bees have not been doing well for the last three years, in this locality. They were not able to make a living—I had to make it for them. Last season I did not get a single swarm. I had to feed them sugar syrup to keep them from starving. And of course where there are no swarms there are no young queens. I lost five queens last winter, so my bees were reduced from 65 colonies to 60.

FRED BOTT.

Wabasha, Minn., July 3, 1893.

He Makes the "Amende Honorable."

I wish to make the *amende honorable* to Mr. John McKean, as he thinks (see page 759) that I treated his letter rather severely; but I hardly know how to go about it. I certainly do not wish to make any one the butt of ridicule, yet I do wish to assist to the extent of my ability to stamp out such errors, by whoever made and wherever found. And where argument cannot be brought against it, as in this, and, I am sorry to say, many other cases, I consider ridicule a fair weapon to be used. I cannot say that I regret having written the article as I did, but I am sorry that Mr. McKean feels hurt over it personally, and has taken it in the spirit that he seems to have done. In conclusion, I wish to express a regret that we cannot all acknowledge our errors, and make our apologies, as kindly and gracefully as he has done.

Musson, La.

DR. A. W. TUFTS.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, July 8, 1893:

CHICAGO, ILL.—We quote fancy new honey at 18c.; No. 2, at 16c.; amber, 15c. Beeswax, 22@25c. We have had some shipments of fancy new stock which sold at once. J. A. L.

CHICAGO, ILL.—There is not much movement in comb honey. Prices range at from 12@16 and 17c., all good grades bringing 15@17c. A few cases of the new crop have arrived and brought the top prices. Beeswax is very steady at about 25c. Extracted honey is moving very slowly at from 6@8c.

R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6c. Beeswax—20@23c. C-M. C. C.

CINCINNATI, O.—New extracted has commenced to arrive lively, and is in fair demand at 5@8c. There is a slow demand for comb-honey, and no choice on our market; prices nominal.

Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—New crop of extracted is arriving freely. Market is quiet and demand limited. Fancy grades sell at from 7@8c.; common to fair, at from 6@70c., as to body, color and flavor. Beeswax, 26@27c. H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality, 1-lbs. Beeswax is neglected at 22@23c. S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 8@7c. No beeswax on the market. H. & B.

BOSTON, MASS.—Honey is selling slow and prices are lower. Best 1-lb. comb, 10@17c.—Extracted, 8@10c.

Beeswax—None on hand.

B. & R.

ALBANY, N. Y.—Our honey market is dull at present. There are some receipts of new extracted, but no reliable price established yet. Beeswax is more plenty, at 27@28c. for good color. H. R. W.

MINNEAPOLIS, MINN.—There is quite an active demand this week for honey, especially white comb honey in 1-lb. sections. Dark is very slow sale. Stock on hand in this market is very light. Receipts have not been enough to supply trade during the past 10 days. Fancy white comb honey, 18@20c.; No. 1 white, 17c.; fancy amber, 16c.; No. 1 amber, 14c.; fancy dark, 12c.; No. 1 dark, 10c. Extracted California 60-lb. kegs, 9c. Beeswax, unsalable. J. A. S. & Co.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.

HILDRETH BROS. & SEGELKEN,

28 & 30 West Broadway

San Francisco, Calif.

SCHACHT, LEMCKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.

CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at 10 cents per line, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17Atf J. A. GREEN, Ottawa, Ill.

TO EXCHANGE—A 4x5 Photograph Outfit, for bee-keepers' supplies or musical instruments.
B. C. HATCH.
Central City, Iowa.

FOUL BROOD CURED without drugs or medicines of any kind. I will go to any foul-broody apiary, and GUARANTEE to cure it without destroying bees or interfering with brood-rearing. No charge for time, car fare, or services, if not successful. Write to me for terms, etc.
NORMAN AUSTIN,
26Atf 6441 Wright St., Englewood, Ills.

WANTED TO SELL OR EXCHANGE for good Florida, Arizona or Southern California property, situated in a good honey locality—an established Wall Paper, Paint, Picture-Framing and Artists' Material business in a thriving city of 10,000. Also, a Printing Office, with Weekly Newspaper and Job Work Trade, established. Correspondence solicited. Satisfactory reasons for wishing to sell.
Address,
CORELL & HILL, Titusville, Pa.

READERS

Of this Journal who write to any of our advertisers, either in ordering, or asking about the Goods offered, will please state that they saw the Advertisement in this paper.

Advertisements.

SPECIAL MATED QUEENS.

DURING August or Sept. I shall **SELECT** about 100 of those **CHOICE**


Yellow All Over Golden Italian Queens

and have them fertilized by some very **CHOICE** **DRONES**, for the purpose of getting some breeding Queens, and as I cannot test all of them, I will sell some, **warranted** to get all 4 and 5 Banded Bees, at \$1.75 each; or **without any warrant**, \$1.25.; in either case they must be ordered and paid for **at least 30 days** in advance. This is a rare chance to get some Fine Breeding Queens Cheap!

Safe arrival guaranteed, and every Queen warranted to get **very yellow drones**.

Money Order office, Cable, Ill. Save this ad.

S.F. Trego, Swedona, Ill

 This looks like a good bargain.—Ed.
Mention the American Bee Journal.

HONEY AS FOOD * * and MEDICINE.

THIS is a little 32-page pamphlet that is just the thing needed to create a **demand** for **HONEY** at home. Honey-producers should scatter it freely, as it shows the valuable uses of Honey for Food as well as for Medicine. It contains recipes for making Honey-Cakes, Cookies, Puddings, Foam, Wines etc. It is intended for consumers, and will be a great help in popularizing honey among the people everywhere, if the pamphlet is liberally distributed.

Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for \$1.50; 100 for \$2.50; 250 for \$5.50; 500 for \$10.00; or 1000 for \$15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page. Address,

GEORGE W. YORK & CO.,
CHICAGO, ILLS.


Mention the American Bee Journal.

PRICE REDUCED ON SECTIONS.

WE have several thousand 1 15-16, 1% and 7-to-the-foot 1-lb. White Sections, which we offer at \$2.75 per M; 2000, \$5.00; 5000 for \$12.00; 10,000, \$22.50. One-lb. Cream 1 15-16 and 1%, at \$2.00 per M; 5000, \$9.00. These are all 4 1/4 square. We also have **Hives** Nailed and Painted. Address,

H. G. ACKLIN,

1024 Mississippi St., - ST. PAUL, MINN.

 Northwestern Agent for A. I. Root's Bee-Keepers' Supplies.

Mention the American Bee Journal.

ESTEY & CAMP

CHICAGO, ST. LOUIS,
State & Jackson Sts. 916-918 Olive St.

A Strictly Reliable Source for

PIANOS *

—: AND —:

* ORGANS

Of All Grades, Sizes and Colors.

Comprising the Celebrated

DECKER BROS.; ESTEY; BRAMBACH

AND **CAMP & CO. PIANOS AND
ESTEY ORGANS.**

Renting, Tuning, Repairing, Etc.

Mention the American Bee Journal.

JUST SPLENDID.

"MR. H. ALLEY—The Queen I got from you last fall is just splendid. She is the best Queen in an apiary of 150 colonies. I would not take \$10 for her.—JOHN A. PEASE, Monrovia, Calif."

Price of such Queens is \$1.00 each.

HENRY ALLEY, Wenham, Mass.
Mention the American Bee Journal.

Are YOU Coming to the * * WORLD'S FAIR?

If so, you should secure **Accommodation** in advance of coming to Chicago

Young Ladies Specially Cared For

You are invited to correspond at once with

MRS. J. P. COOKENBACH,
987 Wilcox Ave., CHICAGO, ILL.,

Who will be pleased to help all desiring to have a comfortable and pleasant place to stay while visiting the World's Fair, and at very reasonable rates.

REFERENCE: By permission, "American Bee Journal."

Mention the American Bee Journal.